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PATENT *Image*
858610-2003.2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : De-Chu TANG, et al.
Serial No. : 10/052,323
For : IMMUNIZATION OF ANIMALS BY TOPICAL
APPLICATION OF A SALMONELLA-BASED VECTOR
Filed : January 18, 2002
Examiner : TBA
Art Unit : 1632

745 Fifth Avenue
New York, NY 10151

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 29, 2003.

William S. Frommer, Reg. No. 25,506

(Name of Applicant, Assignee or Registered Representative)


Signature

October 29, 2003

Date of Signature

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The Examiner's attention is invited to the enclosed documents set forth on the accompanying form PTO-1449, enclosed in duplicate. These publications were cited in the International Search Report of related International Application No. PCT/US03/01599. Copies of the cited documents are enclosed.

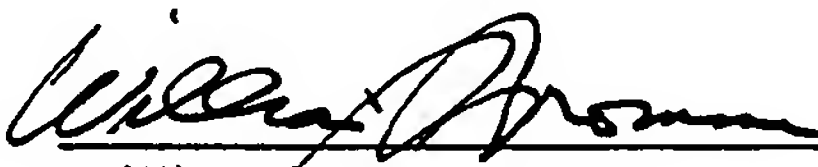
This Information Disclosure Statement is not a representation that the documents cited herein are considered most pertinent, or that a search has been undertaken, or that any of the cited documents are indeed prior art. The Examiner is invited to undertake an independent search.

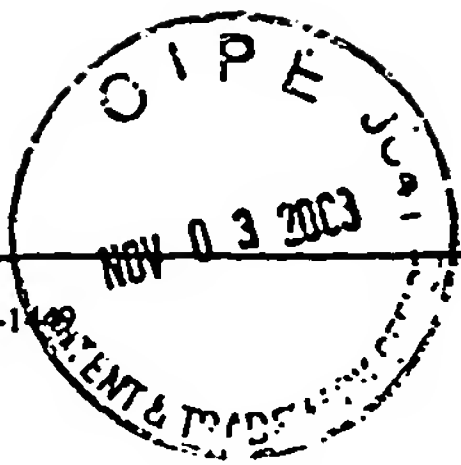
This Information Disclosure Statement is being filed before receipt of the first Office Action on the merits (a restriction requirement was mailed July 16, 2003). However, the Commissioner is hereby authorized to charge any such fee, or credit any overpayment to Deposit Account 50-0320.

Applicants request that the Examiner consider and make of record the documents cited herein and that a copy of the Form PTO-1449, initialed by the Examiner be returned to the undersigned.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP
Attorneys for Applicants

By: 
William S. Frommer
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Based on Form PTO-1449
(3/90)

ATTY. DOCKET NO.

858610-2003.2

SERIAL NO.

10/052,323

LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT

Tang, et al.

FILING DATE

January 18, 2002

GROUP

1632

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|----|-----------------|----------|----------------|-------|----------|-------------------------------|
| GW | AA | 6,339,068 B1 | 01/15/02 | Krieg, et al. | | | |
| | AB | 5,679,647 | 10/21/97 | Carson, et al. | | | |
| | AC | 6,348,450 B1 | 02/19/02 | Tang, et al. | | | |
| | AD | 2003/0045492 A1 | 03/06/03 | Tang, et al. | | | |
| | AE | | | | | | |

FOREIGN PATENT DOCUMENTS

| | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION | |
|--|----|-----------------|------|---------|-------|----------|-------------|----|
| | | | | | | | YES | NO |
| | AF | | | | | | | |
| | AG | | | | | | | |
| | AH | | | | | | | |
| | AI | | | | | | | |
| | AJ | | | | | | | |
| | AK | | | | | | | |
| | AL | | | | | | | |
| | AM | | | | | | | |
| | AN | | | | | | | |

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | | |
|----|----|--|--|
| 75 | A0 | | Babiuk, S., et al., "Topical delivery of plasmid DNA using biphasic lipid vesicles (Biphasix)," J. Pharm, Pharmacol., Dec. 2002, Vol. 54, No. 12, pages 1609-1614. |
| 1 | AP | | Van Oirschot, J.T., "Present and future of veterinary viral vaccinology: A review," Vet. Quart., July 2001, Vol. 23, No. 3, pp. 100-108. |
| 1 | AQ | | Barnfield, C., et al., "The cellular basis of immune induction at mucosal surfaces by DNA vaccination," Dev. Biol. 2000, Vol. 104, pp 159-64. |

EXAMINER

DATE CONSIDERED

11/30/04

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PATENT
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Examiner : To Be Determined

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I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to the Honorable Commissioner of Patents and Trademarks, Washington, DC 20231.

Charles Johnson
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Charles Johnson
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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

The Examiner's attention is respectfully directed to the documents which are set forth on the accompanying form PTO-1449. Since these documents were forwarded to, or cited by, the Examiner in related applications, U.S. Serial No. 09/402,527, filed October 5, 1999, and U.S. Serial No. 09/563,826, filed May 3, 2000 (now U.S. Patent 6,348,450) and a copy of each of these documents should be in the parent application files, no additional copy is being forwarded with this Information Disclosure Statement.

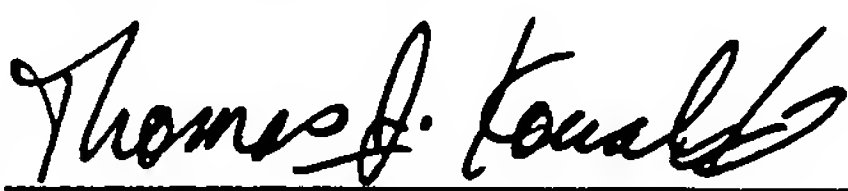
As this Information Disclosure Statement is being filed before the mailing of the first Office Action on the merits, it is believed that no fee is required for entry of this paper. However, the Commissioner is hereby authorized to charge any such fee, or credit any overpayment to Deposit Account 50-0230.

The filing of this Information Disclosure Statement is not an admission that the documents identified herein constitute prior art to the present application.

Applicants respectfully request that the Examiner consider and make of record the documents cited herewith and that a copy of Form PTO-1449 be initialed by the Examiner and returned to the undersigned.

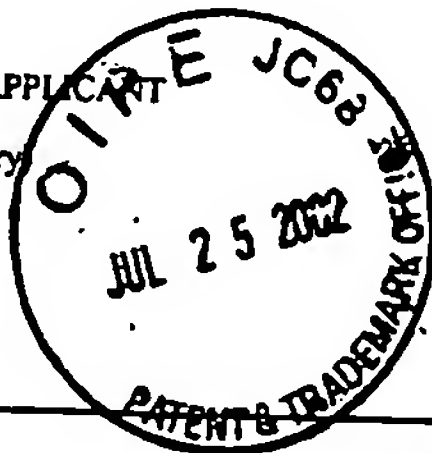
Respectfully submitted,

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U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|----|-----------------|----------|----------------|-------|----------|-------------------------------|
| 712 | AA | 5,616,326 | 04/01/97 | Spibey | | | |
| | AB | 4,797,368 | 1/10/89 | Carter et al. | | | |
| | AC | 4,775,630 | 10/4/88 | Tibbetts et al | | | |
| | AD | 4,806,350 | 2/21/89 | Gerber | | | |
| | AE | 4,863,970 | 9/5/89 | Patel et al | | | |
| | AF | 4,944,942 | 7/31/90 | Brown et al | | | |
| | AG | 4,929,442 | 5/29/90 | Powell | | | |
| | AH | 4,623,541 | 11/18/86 | Elliot et al | | | |
| | AI | 4,674,490 | 6/23/87 | Frankel et al | | | |
| | AJ | 4,594,244 | 6/10/86 | Lehner et al | | | |
| | AK | 4,405,616 | 9/20/83 | Rajadhyaksha | | | |
| | AL | 5,679,647 | 10/21/97 | Carson et al. | | | |
| | | | | | | | |
| | | | | | | | |

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | | |
|-----|----|--|---|
| 712 | AM | | Stephenson, J. "Defective adenoviruses as novel vaccines for the Flaviviridae." Abstract only, Clin Diag. Virol. 15 July 1998, vol. 10, pgs 187-194. |
| | AN | | Saikh et al. "Are DNA-based vaccines useful for protection against secreted bacterial toxins? Tetanus toxin test case." Abstract only, Vaccine. May 1998, Vol. 16, pgs 1029-1038. |
| | AO | | Antohi et al. "The reactivity pattern of hemagglutinin-specific clonotypes from mice immunized as neonates or adults with naked DNA." Abstract only. International Immunology. May 1998, Vol. 10, pgs 663-668, abstract only. |
| | AP | | Fan et al. "Immunization via Hair Follicles by Topical Application of Naked DNA to Normal Skin." Nature Biotechnology. September 1999, vol. 17, pages 870-872, see entire article. |
| | AQ | | Neimiec et al. "Perifollicular Transgenic Expression of Human Interleukin-1 receptor Antagonist Protein following Topical Application of Novel Liposome-Plasmid Formulations in vivo." J. of Pharmaceutical Sciences. June 1997, vol. 86, no. 6, pgs 701-708. |
| | AR | | Scaria et al. "Complementation of a human adenovirus early region 4 deletion mutant in 293 cells using adenovirus-polylysine-DNA complexes. Abstract only", Gene Ther. June 1995, Vol 2, No. 4, pgs 295-298. |
| | AS | | English Abstract for International Patent No. WO 94/10323 |
| | AT | | English Abstract for Canadian Patent No. 2,234,201 |

EXAMINER

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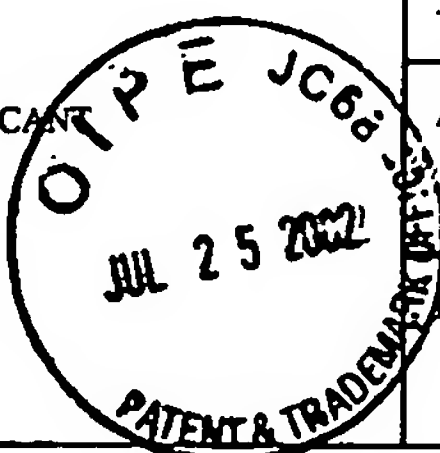
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APPLICANT

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To Be Determined

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|----|-----------------|----------|-------------------|-------|----------|-------------------------------|
| 70 | AU | 4,557,934 | 12/10/85 | Cooper | | | |
| | AV | 5,703,055 | 12/30/97 | Felgner et al | | | |
| | AW | 5,693,622 | 12/2/97 | Wolff et al | | | |
| | AX | 5,707,812 | 1/13/98 | Horn et al | | | |
| | AY | 5,817,637 | 10/6/98 | Weiner et al. | | | |
| | AZ | 5,593,972 | 1/14/97 | Weiner et al. | | | |
| | BA | 5,804,566 | 9/8/98 | Garson et al. | | | |
| | BB | 5,505,945 | 4/9/96 | Gristina et al. | | | |
| | BC | 5,580,859 | 12/3/96 | Felgner et al | | | |
| | BD | 5,589,466 | 12/31/96 | Felgner et al. | | | |
| | BE | 5,795,972 | 8/18/98 | Kmiec | | | |
| | BF | 5,731,181 | 3/24/98 | Kmiec | | | |
| | BG | 5,830,177 | 11/3/98 | Li et al. | | | |
| | BH | 5,753,263 | 5/19/98 | Lishko et al | | | |
| | BI | 5,872,005 | 2/16/99 | Wang et al. | | | |
| | BJ | 5,206,163 | 4/27/93 | Renard et al. | | | |
| | BK | 5,700,680 | 12/23/97 | Newton et al. | | | |
| | BL | 5,707,618 | 1/13/98 | Armentano et al. | | | |
| | BM | 5,792,462 | 8/11/98 | Johnston et al | | | |
| | BN | 5,872,005 | 2/16/99 | Wang et al. | | | |
| | BO | 5,998,382 | 12/7/99 | Furth et al. | | | |
| | BP | 5,756,086 | 5/26/98 | McClelland et al. | | | |
| | BQ | 5,851,806 | 12/22/98 | Kovesdi et al. | | | |
| | BR | 5,700,910 | 12/23/97 | Metzger et al. | | | |
| | BS | 5,846,559 | 12/8/98 | Hopp | | | |
| | BT | 5,885,808 | 3/23/99 | Spooner et al. | | | |

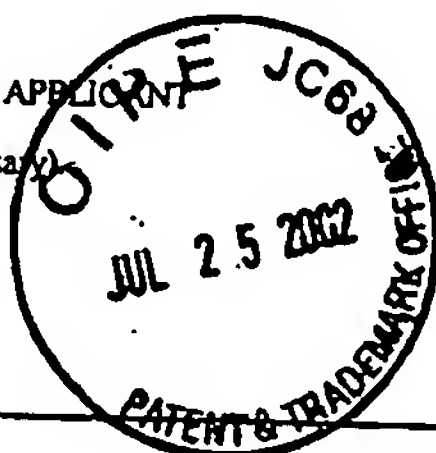
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U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|----|-----------------|----------|------------------|-------|----------|-------------------------------|
| W | BU | 5,874,279 | 2/23/99 | Cochran et al. | | | |
| | BV | 5,718,902 | 2/17/98 | Yilma et al. | | | |
| | BW | 5,849,719 | 12/15/98 | Carson et al. | | | |
| | BX | 5,872,154 | 2/16/99 | Wilson et al. | | | |
| | BY | 5,872,005 | 2/16/99 | Wang et al. | | | |
| | BZ | 5,736,387 | 4/7/98 | Paul et al. | | | |
| | CA | 5,494,807 | 2/27/96 | Paoletti et al. | | | |
| | CB | 5,882,877 | 3/16/99 | Gregory et al. | | | |
| | CC | 5,762,939 | 6/9/98 | Smith et al. | | | |
| | CD | 5,547,932 | 8/20/96 | Curiel et al. | | | |
| | CE | 5,658,785 | 8/19/97 | Johnson | | | |
| | CF | 5,665,362 | 9/9/97 | Inglis et al. | | | |
| | CG | 5,698,443 | 12/16/97 | Henderson et al. | | | |
| | CH | 5,763,270 | 6/9/98 | Eastman et al. | | | |
| | CI | 5,770,442 | 6/23/98 | Wickham et al. | | | |
| | CJ | 5,786,211 | 7/28/98 | Johnson | | | |
| | CK | 5,824,538 | 10/20/98 | Branstrom et al. | | | |
| | CL | 5,830,463 | 11/3/98 | Duke et al. | | | |
| | CM | 5,766,599 | 6/16/98 | Paoletti et al. | | | |
| | CN | 5,780,448 | 7/14/98 | Davis | | | |
| | CO | 5,662,098 | 9/2/97 | Yoshida | | | |
| | CP | 5,648,096 | 7/15/97 | Gander et al. | | | |
| | CQ | 5,645,834 | 7/8/97 | Cockrum | | | |
| | CR | 5,616,329 | 4/1/97 | Newman et al. | | | |
| | CS | 5,530,102 | 6/25/96 | Gristina et al. | | | |
| | CT | 5,505,945 | 4/9/96 | Gristina et al. | | | |

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Joe W. [Signature]

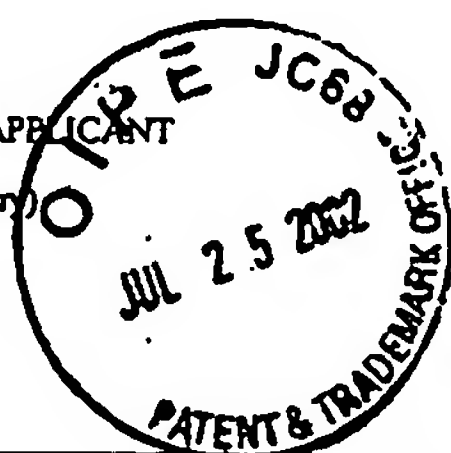
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|----|-----------------|----------|------------------|-------|----------|-------------------------------|
| SW | CU | 5,891,690 | 4/6/99 | Massie | | | |
| | CV | 5,882,877 | 3/16/99 | Gregory et al. | | | |
| | CW | 5,731,172 | 3/24/98 | Saito et al. | | | |
| | CX | 5,698,202 | 12/16/97 | Ertl et al. | | | |
| | CY | 5,585,362 | 12/17/96 | Wilson et al. | | | |
| | CZ | 5,707,618 | 1/13/98 | Armentano et al. | | | |
| | DA | 5,880,102 | 3/9/99 | George et al. | | | |
| | DB | 5,703,055 | 12/30/97 | Felgner et al | | | |
| | DC | 5,700,470 | 12/23/97 | Saito et al. | | | |
| | DD | 5,753,500 | 5/19/98 | Shenk et al. | | | |
| | DE | 5,635,380 | 6/3/97 | Naftilan et al. | | | |
| | DF | 5,580,859 | 12/3/96 | Felgner et al | | | |
| | DG | 5,830,877 | 11/3/98 | Carson et al. | | | |
| | DH | 5,589,466 | 12/31/96 | Felgner et al | | | |
| | DI | 5,679,647 | 10/21/97 | Carson et al | | | |
| | DJ | 5,591,439 | 1/7/97 | Plotkin et al | | | |
| | DK | 5,846,559 | 12/8/98 | Hopp | | | |
| | DL | 5,834,256 | 11/10/98 | Finer et al. | | | |
| | DM | 5,753,263 | 5/19/98 | Lishko et al | | | |
| | DN | 5,866,383 | 2/2/99 | Moss et al | | | |
| | DO | 5,830,177 | 11/3/98 | Li et al | | | |
| | DP | 5,679,647 | 10/21/97 | Carson et al | | | |
| | DQ | 5,023,252 | 6/11/91 | Hseih | | | |
| | DR | 5,139,941 | 8/18/92 | Muzyczka et al. | | | |
| | DS | 5,552,309 | 9/3/96 | March | | | |
| | DT | 5,635,380 | 6/3/97 | Naftilan et al | | | |

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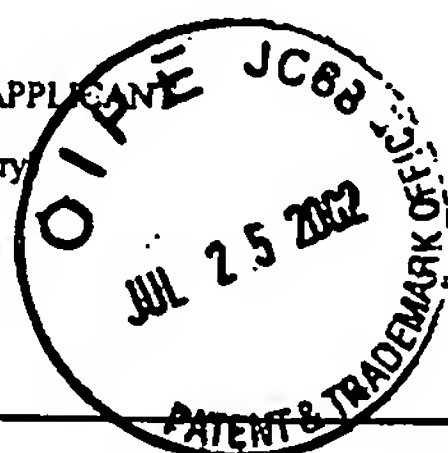
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|---------------------|----|-----------------|----------|------------------------|-------|----------|-------------------------------|
| sw | EI | 3,837,340 | 9/24/74 | Counter | | | |
| | EJ | 3,962,424 | 6/8/76 | Zygraich et al. | | | |
| | EK | 3,950,512 | 4/13/76 | Emery et al. | | | |
| | EL | 3,608,030 | 9/21/71 | Tint | | | |
| | EM | 3,906,092 | 9/16/75 | Hilleman et al. | | | |
| | EN | 4,738,846 | 4/19/88 | Rose et al | | | |
| | EO | 4,089,801 | 5/16/78 | Schneider | | | |
| | EP | 4,217,344 | 8/12/80 | Vanlerberghe et al | | | |
| | EQ | 4,235,871 | 11/25/80 | Papahadjopoulos et al | | | |
| | ER | 4,241,046 | 12/23/80 | Papahadjopoulos et al. | | | |
| | ES | 4,394,448 | 7/19/83 | Szoka, Jr. et al | | | |

FOREIGN PATENT DOCUMENTS

| | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION | |
|----|----|-----------------|---------|---------|-------|----------|-------------|----|
| | | | | | | | YES | NO |
| sw | ET | WO 99/15683 | 4/1/99 | WIPO | | | | |
| | EU | WO 99/08713 | 2/25/99 | WIPO | | | | |
| | EV | WO 90/11092 | 10/4/90 | WIPO | | | | |
| | EW | WO 92/11028 | 7/9/92 | WIPO | | | | |
| | EX | WO 98/03641 | 1/29/98 | WIPO | | | | |

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|----|----|--|
| sw | EY | Alexander et al., "Liposome-mediated Gene Transfer and Expression via the skin," Human Molecular Genetics, 1995, Vol. 4, no. 12, pp. 2279-2285 |
| | EZ | Autumn et al., (2000) "Adhesive force of a single gecko foot-hair." Nature, 405 (6787): 681-5 |
| | FA | Brandsma et al., (1991) "Use of a rapid, efficient inoculation method to induce papillomas by cottontail rabbit papillomavirus DNA shows that the E7 gene is required." PNAS USA 88: 4816-4820 |
| | FB | Choate and Khavari, (1997) "Direct Cutaneous Gene Delivery in a Human Genetic Skin Disease" Human Gene Therapy 8: 1659-1665 |
| | FC | Ciernik et al. (1996) "Puncture-Mediated Gene Transfer to the Skin," Human Gene Therapy, vol. 7, 893-899 |
| | FD | Donnelly et al. (1997) "DNA Vaccines", Life Sciences, vol 60, no. 3, 163-172 |

EXAMINER

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11/30/04

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|----|----|-----------------|----------|---------|-------|----------|-------------|
| 70 | FE | 0 638 316 A1 | 2/15/95 | EUROPE | | | |
| | FF | 298142 A1 | 1/11/89 | EUROPE | | | |
| | FG | 406778 A1 | 1/9/91 | EUROPE | | | |
| | FH | 286798 A2 | 10/19/88 | EUROPE | | | |
| | FI | 0 773 295 A2 | 5/14/97 | EUROPE | | | |
| | FJ | WO 00/66179 | 11/9/00 | WIPO | | | |
| | FK | WO 95/05853 | 3/2/95 | WIPO | | | |
| | FL | WO 99/15683 | 4/1/99 | WIPO | | | |
| | | | | | | | |
| | | | | | | | |

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|----|----|---|
| 70 | FM | Guo, Z. et al., "Efficient and sustained transgene expression in mature rat oligodendrocytes in primary culture." J. Neurosci. Res., vol. 43, no. 1, 32-41, January 1, 1996 (Abstract) |
| | FN | Khavari, P., "Therapeutic gene delivery to the skin." (1997) Molecular Medicine Today, vol. 3, 533-538. |
| | FO | Panchagnula et al., "Animal models for transdermal drug delivery." (1997) Meth. Find. Exp. Clin. Pharmacol., 19(5): 335-341 |
| | FP | Todryk et al., (1996) "Induction of Immune responses to functional determinants of a cell surface streptococcal antigen," Immunology, vol. 87, 55-63. |
| | FQ | Tsukui et al., (1996) "Transgenesis by adenovirus-mediated gene transfer into mouse zona-free eggs", Nature Biotechnology, vol. 14, 982-985. |
| | FR | Lu et al., "Topical Applications of Viral Vectors for Epidermal Gene Transfer", The Journal of Investigative Dermatology, vol. 108, no. 5, May 1997 |
| | FS | Huyghe et al., "Purification of a Type 5 Recombinant Adenovirus Encoding Human p53 by Column Chromatography", Human Gene Therapy, vol. 6, pp. 1403-1416, November 1995 |
| | FT | Tang et al., "Butyrate-inducible and tumor-restricted gene expression by adenovirus vectors", Cancer Gene Therapy, vol. 1, no. 1, pp. 15-20, 1994 |
| | FU | Remus et al. "Insertion of Foreign DNA into an Established Mammalian Genome Can Alter the Methylation of Cellular DNA Sequences", Journal of Virology, vol. 73, no. 2, pp. 1010-1022, February 1999 |
| | FV | Brown et al., "Adenoviral Vectors Given Intravenously to Immunocompromised Mice Yield Stable Transduction of the Colonic Epithelium", Gastroenterology, vol. 112, pp. 1586-1594, 1997 |
| | FW | Wang et al., "Correction of a Deletion Mutant by Gene Targeting with an Adenovirus Vector", Molecular and Cellular Biology, vol. 13, no. 2, pp. 918-927, February 1993 |
| | FX | Tsukui et al., "Transgenesis by adenovirus-mediated gene transfer into mouse zona-free eggs", Nature Biotechnology, vol. 14, pp. 982-985, August 1996 |
| | FY | Niemic et al., "DNA Perifollicular Transgenic Expression of Human Interleukin-1 Receptor Antagonist Protein following Topical Application of Novel Liposome-Plasmid DNA Formulations In Vivo", Journal of Pharmaceutical Sciences, vol. 86, no. 6, June 1997 pp. 701-708, June 1997 |
| | FZ | Ciemik et al., "Puncture-Mediated Gene Transfer to the Skin", Human Gene Therapy, vol. 7, pp. 893-899, May 20, 1996 |

EXAMINER

Joe W. Jadae

DATE CONSIDERED

11/30/04

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT

Tang et al.

FILING DATE

January 18, 2002

GROUP

To Be Determined

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|----|----|---|
| 70 | GA | Condon et al., "DNA-based immunization by in vivo transfection of dendritic cells", Nature Medicine, vol. 2, no. 10, pp. 1122-1126, October 1996 |
| | GB | Yang, N.S. et al., "Gene gun and other non-viral approaches for cancer gene therapy" Nat. Med., vol. 1, no. 5, 481-481, May 1995 (Abstract) |
| | GC | Raz et al., "Intradermal gene immunization: The possible role of DNA uptake in the induction of cellular immunity to viruses", Proc. Natl. Acad. Sci. USA, vol. 91, pp. 9519-9523, September 1994 |
| | GD | Greenhalgh et al., "Epidermis: An Attractive Target Tissue for Gene Therapy", Gene Therapy, vol. 103, no. 5, pp. 63S-69S, November 1994 |
| | GE | Yokoyama et al., "DNA immunization: Effects of vehicle and route of administration on the induction of protective antiviral immunity", FEMS Immunology and Medical Microbiology, vol. 14, pp. 221-230, 1996 |
| | GF | Hong et al., "Topical Gene Delivery to Murine Skin", The Society for Investigative Dermatology, Inc., pp. 370-373, 1999 |
| | GG | Shi et al., "DNA-based non-invasive vaccination onto the skin", Vaccine, vol. 17, pp. 2136-2141, 1999 |
| | GH | Johnston et al., "The Use of Microparticle Injection to Introduce Genes Into Animal Cells In Vitro and In Vivo", Genetic Engineering, vol. 15, pp. 225-234, 1993 |
| | GI | Tang et al., "Vaccination onto bare skin", Nature, vol. 388, pp. 729-730, August 1997 |
| | GJ | Tang et al., "Genetic immunization is a simple method for eliciting an immune response", Nature, vol. 356, pp. 152-154, March 12, 1992 |
| | GK | Lu et al., "Topical Application of Viral Vectors for Epidermal Gene Transfer", The Society for Investigative Dermatology, Inc., vol. 108, pp. 803-808, 1997 |
| | GL | Yokoyama et al., "DNA immunization: Effects of vehicle and route of administration on the induction of protective antiviral immunity", FEMS Immunology and Medical Microbiology, vol. 14, pp. 221-230, 1996 |
| | GM | Weiner N., "Targeted follicular delivery of macromolecules via liposomes", International Journal of Pharmaceuticals, vol. 162, pp. 29-38, 1998 |
| | GN | Li et al., "The feasibility of targeted selective gene therapy of the hair follicle." Nature Medicine, vol. 1, no. 7, pp. 705-706, 7 July 1995 |
| | GO | Lu et al., "A model for keratinocyte gene therapy: preclinical and therapeutic considerations" Proc. Assoc. Amer. Phys., vol. 108, no. 2, pp. 165-172, March 1996 |
| | GP | Sarphie et al., "Bioavailability following transdermal powdered delivery (TPD) of radiolabeled inulin to hairless guinea pigs", Journal of Controlled Release, vol. 47, pp. 61-69, 1997 |
| | GQ | Todryk et al., "Induction of immune responses to functional determinants of a cell surface streptococcal antigen", Immunology, vol. 87, pp. 55-63, 1996 |
| | GR | Goldman et al., "In vitro and in vivo gene delivery mediated by a synthetic polycationic amino polymer", Nature Biotechnology, May 1997, vol. 15, pp. 462-466 |
| | GS | Lu et al., "Topical Application of Viral Vectors for Epidermal Gene Transfer", The Society for Investigative Dermatology, Inc., pp. 803-808, 1997 |
| | GT | Donnelley et al., "DNA VACCINES", Life Sciences, vol. 60, no. 3, pp. 163-172, 1997 |
| | GU | Paul et al., "Transdermal immunization with large proteins by means of ultradeformable drug carriers", Eur. J. Immunol., vol. 25, pp. 3521-3524, 1995 |
| | GV | Sawamura et al. "In Vivo Transfer of a Foreign Gene to Keratinocytes Using the Hemagglutinating Virus of Japan-Liposome Method", The Society for Investigative Dermatology, Inc., pp. 195-199, 1997 |
| | GW | Zhdanov et al., "Nonviral methods of gene transfer in gene therapy", Vopr Med Khim, vol. 43, no. 1, 1997 Jan. Feb., pp. 3-12 (Abstract) |

EXAMINER

DATE CONSIDERED



11/30/04

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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10/052,323

LIST OF REFERENCES CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANT

Tang et al.

FILING DATE

January 18, 2002

GROUP

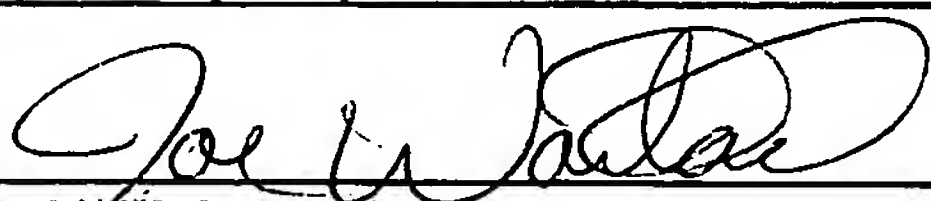
To Be Determined

OTHER PAGES (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|----|----|--|
| 72 | GX | Lee et al., "Control of immune responses by gene immunization", Ann. Med. Vol. 5, pp. 46-0468, October 1998 (Abstract) |
| | GY | Lee et al., "Induction of an antigen-specific, CD1-restricted cytotoxic T lymphocyte response In vivo", J. Exp. Med., vol. 187, no. 3, pp. 433-438, Feb 2, 1998 (Abstract) |
| | GZ | Corr et al., "Costimulation provided by DNA immunization enhances antitumor immunity", J. Immunol., vol. 159, no. 10, pp. 4999-5004, November 15, 1997 (Abstract) |
| | HA | Lee et al., "Inhibition of IgE antibody formation by plasmid DNA immunization is mediated by both CD4+ and CD8+ T Cells", Int. Arch Allergy Immunol., vol. 113, nos. 103, pp. 227-230, May-Jul. 1997 (Abstract) |
| | HB | Corr et al., "Gene vaccination with naked plasmid DNA: mechanism of CTL priming", J. Exp. Med. Vol. 184, no. 4, pp. 1555-1560, Oct. 1, 1996 (Abstract) |
| | HC | Sato et al., "Immunostimulatory DNA sequences necessary for effective intradermal gene immunization", Science, vol. 273, no. 5273, pp. 352-354, Jul-19, 1996 (Abstract) |
| | HD | Raz et al., "Preferential induction of a Th1 immune response and inhibition of specific IgE antibody formation by plasmid DNA immunization", Proc. Nat'l. Acad. Sci. USA, vol. 93, no. 10, pp. 5141-5145, May 14, 1996 (Abstract) |
| | HE | Raz et al., "Intradermal gene immunization: the possible role of DNA uptake in the induction of cellular immunity to viruses", Proc. Natl. Acad. Sci. USA, vol. 91, no. 20, pp. 519-523, Sep. 27, 1994 (Abstract) |
| | HF | Krawczynski et al., "Effect of immune globulin on the prevention of experimental hepatitis C virus infection", J. Infect. Dis., vol. 173, no. 4, pp. 822-828, April 1996 (Abstract) |
| | HG | Watanabe et al., "Induction of antibodies to a kappa V region by gene immunization", J. Immunol., vol. 151, no. 5, pp. 2871-2876, Sept. 1, 1993 (Abstract) |
| | HH | Silverman et al., "Structural characterization of the second major cross-reactive idiotype group of human rheumatoid factors. Association with the VH4 gene family", Arthritis Rheum., vol. 33, no. 9, pp. 1347-1360, Sept. 1990 (Abstract) |
| | HI | Carson, "Infectious diseases in day-care centers: transmission and approaches to prevention", Drug Intell. Clin. Pharm., vol. 21, no. 9, pp. 694-701, Sept. 1987, (Abstract) |
| | HJ | Rhodes et al., "Autoantibodies in infectious mononucleosis have specificity for the glycine-alanine repeating region of the Epstein-Barr virus nuclear antigen", J. Exp. Med., vol. 165, no. 4, pp. 1026-1040, April 1, 1987 (Abstract) |
| | HK | Fong et al., "The common occurrence of internal image type anti-idiotypic antibodies in rabbits immunized with monoclonal and polyclonal human IgM rheumatoid factors", Clin. Exp. Immunol., vol. 64, no. 3, pp. 570-580, June 1986 (Abstract) |
| | HL | Goni et al., "Sequence similarities and cross-idiotypic specificity of L chains among human monoclonal IgM kappa with anti-gamma-globulin activity", J. Immunol., vol. 135, no. 6, pp. 4073-4079, Dec. 1985 (Abstract) |
| | HM | Chen et al., "Characterization of human-rheumatoid factors with seven antiidiotypes induced by synthetic hypervariable region peptides", J. Exp. Med., vol. 162, no. 2, pp. 487-500, August 1, 1985, (Abstract) |
| | HN | Chen et al., "Characterization of an epibody. An antiidiotypic that reacts with both the idiotype of rheumatoid factors (RF) and the antigen recognized by RF.", J. Exp. Med., vol. 161, no. 2, pp. 323-331, Feb. 1, 1985 (Abstract) |
| | HO | Chen et al., "Delineation of a cross-reactive idiotype on human autoantibodies with antibody against a synthetic peptide", J. Exp. Med., vol. 159, no. 5, pp. 1502-1511, May 1, 1984 (Abstract) |
| | HP | Chen et al., "Anti-hypervariable region antibody induced by a defined peptide: an approach for studying the structural correlates of idiotypes", Proc. Natl. Acad. Sci. USA, vol. 81, no. 6, pp. 1784-1788, March 1984 (Abstract) |

EXAMINER

DATE CONSIDERED



11/30/04

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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10/052,323

LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT

Tang et al.

FILING DATE

January 18, 2002

GROUP

To Be Determined

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|----|----|---|
| 76 | HQ | Welch et al., "Increased frequency of rheumatoid factor precursor B lymphocytes after immunization of normal adults with tetanus toxoid", Clin. Exp. Immunol., vol. 51, no. 2, pp. 299-304, Feb. 1983 (Abstract) |
| | HR | Krul, "Advances in Gene Therapy: Clear Progress Despite Setbacks", Therapy Markets and Emerging Technologies Spectrum Publications, Issue 112, 47 pages, December 20, 1996 (Abstract) |
| | HS | Press Release, "Perkin-Elmer and Kimeragen to Develop Novel Gene Repair Molecules That Treat Genetic Diseases", Norwalk, CT and Newtown, PA, September 24, 1996 |
| | HT | Stephenson, "New Method to Repair Faulty Genes Stirs Interest in Chimeraplasty Technique", JAMA, vol. 282, no. 2, pp. 119-121, January 13, 1999 |
| | HU | Mann et al. "Gene localization and developmental expression of light chain 3: a common subunit of microtubule-associated protein 1A(MAP1A) and MAP1B." J. Neurosci. Res., vol. 43, no. 1, pp. 32-41, January 1, 1996 (Abstract) |
| | HV | Yang et al. "Gene gun and other non-viral approaches for cancer gene therapy" Nat. Med., vol. 1, no. 5, pp. 481-481, May 1995 (Abstract) |
| 92 | HW | Scott et al. "Annual Congress of Dermatologic Research '97. Tours, France, April 10-11, 1997. Abstracts." J. Invest. Dermatol., vol. 108, no. 5, pp. 803-808, May 1997 (Abstract) |
| | HX | Citations from BIOLOGICAL ABSTRACTS:BIO, October 15, 1997 |
| | HY | English Abstract for German Patent No. DE 3937412 |
| | HZ | English Abstract for International Patent No. WO 94/10323 |
| | IA | English Abstract for Canadian Patent No. 2,234,201 |
| | IB | English Abstract for European Patent Appln. No. 97-200773295 (US Patent 5,780,448) |
| | IC | English Abstract for European Patent Appln. No. 96-200711571 (US Patent 5,62,098) |
| | ID | English Abstract for European Patent Appln. No. 91-020406778 (DE Patent 0406778) |
| | IE | English Abstract for European Patent Appln. No. 89-090304786 (DE Patent 4944942) |
| | IF | English Abstract for European Patent Appln. No. 89-020298142 (DE Patent 0298142) |
| | IG | English Abstract for European Patent Appln. No. 88-420286798 (DE Patent 0286798) |
| | IH | English Abstract for European Patent Appln. No. 88-080256190 (US Patent 4,623,544) |
| | II | English Abstract for European Patent Appln. No. 87-110213753 (US Patent 4,674,490) |
| | IJ | English Abstract for European Patent Appln. No. 84-340116472 (US Patent 4,594,244) |
| | IK | English Abstract for European Patent No. 05662098 (US Patent 5,662,098) |
| | IL | English Abstract for European Patent No. 05648096 (US Patent 5,648,096) |
| | IM | English Abstract for European Patent No. 05645834 (US Patent 5,645,834) |
| | IN | English Abstract for European Patent No. 05530102 (US Patent 5,530,102) |
| | IO | English Abstract for European Patent No. 05505945 (US Patent 5,505,945) |
| | IP | English Abstract for German Patent No. DE 3937412 (US Patent 3,937,412) |
| | IQ | English Abstract for European Patent No. 05616329 (US Patent 5,616,329) |
| | IR | English Abstract for European Patent Appln. No. 88-080256190 (US Patent 4,623,544) |

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